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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,503	07/09/2001	Rodney Schmidt	TT4055	4904

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EXAMINER

CASIANO, ANGEL L

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 04/19/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,503

Applicant(s)

SCHMIDT ET AL.

Examiner

Angel L. Casiano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 20 is/are allowed.
- 6) ☒ Claim(s) 1, 8-10, 12 and 21 is/are rejected.
- 7) ☒ Claim(s) 2-7, 13-19 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The present Office Action is in response to Amendment dated 29 January 2004.
2. Claims 1-22 are pending in the application.

Drawings

3. Objections to the Drawings have been overcome with the corrections filed in the present Amendment (see Replacement sheet for Figure 2).

Specification

4. Objection to the Specification has been overcome with the corrections filed in the present Amendment.

Claim Objections

5. Objection to claim 7 has been overcome with the corrections filed in the present Amendment.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

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matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 8-10, 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koenck et al. [US 6,014,705] in view of Lipe et al. [US 5,784,615].

Regarding claim 1, Koenck et al. teaches a communication system (see col. 2, lines 17-19; col. 9, lines 45-47; col. 12, lines 24-30). The disclosure by Koenck et al. includes physical layer hardware (see Fig. 1B, "259") adapted to communicate (see "wireless", col. 10, lines 28-29) data over a communications channel (see col. 10, lines 24-25) in accordance to control codes (see "control signals", col. 8, line 51; col. 9, lines 53-54). The physical layer hardware is disclosed by the prior art as being a modem (see Fig. 1B, "259"). By definition, a modem is adapted to convert digital pulses to analog signals and vice versa (*modulate-demodulate*). Accordingly, the cited physical layer in the reference is adapted to demodulate an incoming analog signal and generate a digital receive signal and to modulate a digital transmit signal to generate an analog transmit signal. Koenck et al. also includes a processing unit (see "microprocessor", Abstract; Fig. 1A). The cited driver (see "program") includes instructions for implementing a protocol layer (see Figs. 1B, 1C; col. 9, line 57) based on control codes (see Abstract). However, Koenck et al. does not explicitly teach a *privileged driver for interfacing with the physical layer hardware*, as claimed. Nonetheless, Lipe et al. teaches a driver for interfacing with a physical layer hardware (see "modem"). Lipe et al. teaches a *privileged driver* (see col. 2, lines 10-32). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to obtain a system implementing protected mode

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processing unit (see Lipe et al. "microprocessor") having controlled access to operating system data structures (see Lipe et al.).

In consideration of claim 8, Koenck et al. teaches control instructions including frequency assignment (inherent, see col. 8, lines 30-35; col. 9, lines 27-31) and time slot assignment (inherent, see col. 4, lines 64-67; col. 5, lines 1-13).

As per claim 9, Koenck et al. teaches a processing unit as being a microprocessor (see Abstract).

As for claim 10, Koenck et al. teaches a system (see Abstract) as well as a processing complex adapted to execute a code. A bus is coupled to the processor complex (see Figs. 1 (A-C)). The cited prior art includes an expansion card (see Fig. 2; col. 11, lines 49-61) coupled to the bus. The expansion card includes the physical layer hardware (see "modem", col. 4, lines 10-12; col. 33, lines 3-10).

Regarding claim 12, this constitutes the method for configuring a transceiver in a communication system. As stated in previously in the present Office Action, the combination of references (Koenck et al. in view of Lipe et al.; see claim 1) teaches the system for the method in claim 12. Therefore, the combination of references also teaches the method oriented to the transceiver in the cited system. Claim 12 is rejected under the same rationale.

Regarding claim 21, Koenck et al. teaches a communication system (see col. 2, lines 17-19; col. 9, lines 45-47; col. 12, lines 24-30). The cited art teaches physical layer hardware as being a

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modem (see Fig. 1B, "259"). By definition, a modem is adapted to convert digital pulses to analog signals and vice versa (*modulate-demodulate*). Accordingly, the cited physical layer in the reference is adapted to demodulate an incoming analog signal and generate a digital receive signal and to modulate a digital transmit signal to generate an analog transmit signal. Koenck et al. also includes a processing unit (see "microprocessor", Abstract; Fig. 1A). The cited driver (see "program") includes instructions for implementing a protocol layer (see Figs. 1B, 1C; col. 9, line 57) based on control codes (see Abstract).

Allowable Subject Matter

8. Claims 2-7, 13-19 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 11 and 20 are allowed.

Response to Arguments

10. Applicant's arguments, see Amendment, filed 29 January 2004, with respect to the rejection(s) of claim(s) 1, 8-10, 11 and 21 under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lipe et al. [US 5,784,615].

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Reiser [US 6,718,485 B1] teaches decoding instructions and examining values in machine registers. In addition, it discloses privileged instructions ("system calls").
- Feagans [US 6,360,281 B1] teaches a soft modem. In addition, the reference exposes privilege levels for code performing functions.
- Glew et al. [US 5,948,097] teaches method and apparatus for changing privilege levels in a computer system.
- Ooi et al. [US 5,347,636] teaches a register indicating the privilege level of a current instruction execution.
- Schiffleger [US 5,371,879] teaches a program executing privileged instructions while operating in user mode.
- Yamahata [US 5,247,639] teaches privilege instructions.
- Sakai [JP 01147723 A] teaches information processing having privilege instructions.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 703-305-8301. The examiner can normally be reached on 9:30-6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

alc
14 April 2004.



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100